

AMENDMENTS TO THE DRAWINGS:

The attached sheet of drawings includes changes to Figures 1-4. These sheets, which includes Figures 1-4, replaces the original sheets including Figures 1-4. These figures were amended to add prior art legend.

REMARKS

The application has been amended and is believed to be in condition for allowance.

Figures 1-4 were amended to add prior art legend.

The claims have been amended consistent with the disclosure of specification page 5, "Figure 2 shows a more detailed illustration of an arbitrary pulley disc 43 on the basis of a cross section seen in the tangential direction. The running surface 40 or contact surface 40 of the pulley disc 43 is provided with a curvature, with a pulley angle α , defined between a tangent 41 at a point R on the contact surface 40 and a radial direction 42, increasing as seen in this radial direction." and as illustrated in Figure 2.

Withdrawal of the claim objections is solicited.

New claims based on Figure 5, and the corresponding specification text, have been added. The prior claims have also been amended to recite the respective pulley angles in relation to the corresponding running radius ($\alpha(R_p)$, $\alpha(R_s)$). No new matter is entered by way of these amendments.

Reference is made to the present specification, beginning at page 6. Figure 1 shows a continuously variable transmission 1 having a primary driven pulley 2 and a driven secondary pulley 3, provided with a pulley disc 21, 31 which is fixed to the respective pulley axle 20, 30 and with a pulley disc

22, 32 displaceable in the axial direction with respect to the axle 20, 30. The transmission ratio of the transmission 1 is determined by the ratio of a primary running radius R_p and a secondary running radius R_s , i.e., its effective radial position between the pulley discs of the respective pulleys. The running radii R_p and R_s and therefore the transmission ratio R_p/R_s can be varied by causing the displaceable discs to move in opposite axial directions along the respective pulley axles.

In Figure 3, the lines L, M and H indicate the position of the drive belt 10 in three transmission ratios of the transmission (L: lowest transmission ratio, H: the highest transmission ratio, and M: a transmission ratio equal to 1, in which the primary running radius R_p is equal to the secondary running radius R_s and the primary axle 20 and the secondary axle 30 have the same rotational speed).

Figure 2 shows a more detailed illustration of an arbitrary pulley disc 43. The running/contact surface 40 of the pulley disc 43 is provided with a curvature, with a pulley angle α , defined between a tangent 41 at a point R on the contact surface 40 and a radial direction 42, increasing as seen in this radial direction.

Figure 4 shows a graph which plots the pulley angle α -defined in accordance with Figure 2 - of the primary pulley 2 and of the secondary pulley 3 in relation to the respective

running radius R_P , R_S of the drive belt 10. In this example, the pulley angles in relation to the running radius $\alpha(R_P)$, $\alpha(R_S)$ are given by the known requirement that the drive belt 10, in all possible transmission ratios R_P/R_S be oriented substantially perpendicular to the pulley axles 20 and 30. For both pulleys 2, 3 the pulley angle α varies between approximately 7.5° and 10.8° .

Figure 5 illustrates a similar graph, plotting the pulley angles in relation to the respective running radius $\alpha(R_P)$, $\alpha(R_S)$, but in accordance with the invention. According to the invention, the highest value for the pulley angle of the secondary pulley ($\pm 8.8^\circ$) is advantageously smaller than the highest pulley angle of the primary pulley ($\pm 11^\circ$), while the respective lowest values therefor ($\pm 7^\circ$) approximately correspond to one another. Compared to the graph shown in Figure 4, in the transmission according to the invention, the range for the pulley angle α for the secondary pulley 3 has become smaller.

Art Rejection

Claims 6-13 were rejected as anticipated by BRANDSMA 2003/0144097.

The rejection seems to be based on the prior art of BRANDSMA providing a curvature of the running surface (40) of the primary pulley (2) and the curvature of the running surface (40) of the secondary pulley (3) differ from one another by the

feature that the highest value for the pulley angle of the secondary pulley (3) at SOME running radius ($\alpha(R_s)$) is lower than the highest value for the pulley angle of the primary pulley (2) at a DIFFERENT running radius ($\alpha(R_p)$). This is not what was being claimed, and the present claims make this clear that the comparison is of the respective pulley angles at the SAME running radius.

The claims, as amended, are neither anticipated nor render obvious by BRANDSMA.

BRANDSMA Figures 1-2 disclose a primary input pulley 2 and a secondary output pulley 3 (paragraph [0027]). All of BRANDSMA Figures 4A, 4B, 5A, 5B, 6A, and 6B pertain to the primary pulley 2. BRANDSMA does not contain any specific teaching in relation to the other, secondary pulley 3. More particularly, BRANDSMA makes no teaching as to the recited "pulley angle" of the primary pulley to the secondary pulley.

Rather, BRANDSMA relates to the shape ("belt angle") of the drive belt 10 in relation to that ("pulley angle") of either one of the pulleys.

The present invention is directed to the shape of the primary pulley differing from the being defined in relation to the shape of the secondary pulley.

BRANDSMA relates to the elastic deformation of the pulley discs during operation of the CVT, which deformed shape of the pulley disc is shown in Figures 4B, 5B, and 6B. As such, the known pulley discs are either designed with a straight surface contour as seen in tangential cross-section of Figures 4A, 5A, or with a concave shape of such contour as seen in Figure 6A.

However, more specific to the pending claims, BRANDSMA makes no teachings as to the curvature of the first running surface (40) of the primary pulley (2) and the curvature of the second running surface (40) of the secondary pulley (3) differing from one another by the feature that the highest value for the pulley angle (α) of the secondary pulley (3) at a highest running radius ($\alpha(R_s)$) is lower than the highest value for the pulley angle (α) of the primary pulley (2) at the same highest running radius ($\alpha(R_p)$).

Nor are the comparative pulley angles of the dependent claims taught or suggested.

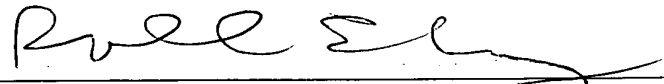
Reconsideration and allowance of all the claims are respectfully requested.

Should there be any matters that need to be resolved in the present application the Examiner is respectfully requested to contact the undersigned at the telephone number listed below.

The Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 25-0120 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17.

Respectfully submitted,

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